HR31 Project Management Training

Revised September 1997

Non-Project Managers Qualification Standard (May 1995)

MASTER LIST

Required Competencies:	**Level Required:**	**F** = Familiarity **W**=Working **E**=Expert **D**=Demonstrated Ability	PMC10 Project Management Overview (Includes PMC11 Train-Train)	PMMS5 Best Practices in DOE Project Management	PMMS1 Project Planning	PMMS2 Cost & Schedule Estimation & Analysis	PMMS3 Project Execution	PMCE01 Life Cycle Cost Estimating	PMCE02 Systems Engineering	PMCE03 Project Risk Analysis and Management	PMMS11 Budgeting & Accounting for DOE Program/Project Managers	PIGM01 Program Management Overview	PGM02 Program Planning	PGM05 Program Execution, Control, & Evaluation	PGM06 Effective Managerial Decision Making	PRS17 Contracting Officer's Representative	PRS25 Acquisition Management for Technical Personnel	PSIN28 Performance Based Management Contracting	PSIN29 Life Cycle Asset Management
1.19 Working level knowledge of the following engineering design principles: value engineering configuration management, systems engineering, reverse engineering, life cycle cost, maintainability																			
1.19a. Define: value engineering, configuration management, systems engineering, reverse engineering, life cycle cost, maintainability			F	F	F	F	F	F	F										F
1.19b. Describe the reverse engineering process and its benefits																			
1.19c. Describe how the principles of value engineering can be applied to mechanical systems projects			F	F	F	F			F										
1.19d. Explain how life cycle costs are determined for a mechanical system and how those costs can be used			F	F	F	F		F											F
1.19e. Explain systems engineering principles and benefits			F	F	F	F	F		F										
1.19f. Describe why maintainability must be considered in mechanical system design			F	F	F		F												
1.19g. Discuss the principles and importance of configuration management			F	F	F		F												
2.2 Familiarity level knowledge of DOE Standard DOE-STD-1073-93, Guide for Operational Configuration Management Program																			
2.2a. Describe the purpose and objectives of the Operational Configuration Management Program			F	F	F		F												
2.2b. Discuss what constitutes acceptable contractor compliance consistent with the requirements of DOE-STD-1073-93, Guide for Operational Configuration Management Program, for the following elements of the contractor's Configuration Management plan:																			

2.2b. Discuss what constitutes acceptable contractor performance consistent with the requirements of DOE-STD-1073-93, Guide for Operational Configuration Management Program, for the following elements of the contractor's Configuration Management Plan:																					
2.2c. Discuss the following elements of the Configuration Management Program: design requirements, document control, change control, assessments, design reconstitution adjunct, materials condition	F	F	F	F	F		F														
2.2d. Discuss the purpose, concepts, and general process for applying the graded approach to operational configuration management	F	F	F	F	F		F	F													
2.2 Working level knowledge of DOE Order 4700.1, Project Management System as it applies to DOE construction projects																					
2.2a. Discuss the purpose, scope, and application of DOE Order 4700.1, Project Management System. Include in this discussion the key terms, essential elements, and personnel responsibilities and authorities	F	F	W	W	W				F	F		F		F	F	F	F				
2.2b. Discuss the project management terminology for which definitions are provided in DOE Order 4700.1, Project Management System	F	F	W	W	W				F	F		F	F	F	F	F	F				
2.2c. Discuss the responsibilities of the following positions in the management of a construction project: contracting officer, project manager, construction engineer, architect-engineer, construction contractor, construction manager, operating contractor	F	F	F	F	F									F	F	F					
2.2d. Discuss the purpose of "critical decisions". Include in the discussion the responsible authorities for critical decision	F	F	W	W	W	F	F	F	F				F				F				
2.2e. Support the preparation of a project execution plan for a construction project using the guidance provided in DOE Order 4700.1, Project Management System											F										
2.2f. Discuss the requirements that must be met to make a change to a project execution plan.	F	F	F	F	F	F	F	F	F								F	F			
2.2g. Discuss the following types of cost estimates used during the life of a construction project: planning estimate, budget estimate, Title I design estimates, Title II estimates, government estimates, current working estimates, independent cost estimate	F	F	W	W	W	F		F													
2.2h. Discuss the purpose and application of the Project Authorization System to construction projects	F	F			F									F		F					
2.2i. Describe the aids used to control construction activities	F	F	F	F	F		F							F	F	F					
2.2j. Discuss the documents that should be maintained in the construction project record	F	F			F									F							
2.2k. Discuss the content, requirements, and application of Title I and Title II Design Summaries to construction projects																					
2.2l. Discuss the graded approach to each of the following elements of project baseline development: technical baseline and work scope development, roles and responsibilities, cost estimating, planning and scheduling baseline, cost baseline	F	F	W	W	W	F	F	W	F					F	F	F	F				
2.3 Familiarity level knowledge of DOE Standard DOE-STD-1073-93, Guide for Operational Configuration Management Program																					
2.3a. Describe the purpose and objectives of the Operational Configuration Management Program	F	F	F		F																
2.3b. Discuss what constitutes acceptable contractor compliance consistent with the requirements of DOE-STD-1073-93, Guide for Operational Configuration Management	F	F	F		F																

Program, for the following elements of the contractor's Configuration Management plan:																					
2.3b. Discuss what constitutes acceptable contractor performance consistent with the requirements of DOE-STD-1073-93, Guide for Operational Configuration Management Program, for the following elements of the contractor's Configuration Management Plan:	F	F	F		F																
2.3c. Discuss the following elements of the Configuration Management Program: design requirements, document control, change control, assessments, design reconstitution adjunct, materials condition	F	F	F	F	F		F														
2.3d. Discuss the purpose, concepts, and general process for applying the graded approach to operational configuration management	F	F	F	F	F		F	F													
2.3 Familiarity level knowledge of DOE Order 4700.1, Project Management System																					
2.3a. Discuss the purpose, scope, and application of DOE Order 4700.1, Project Management System. Include in this discussion the key terms, essential elements, and personnel responsibilities and authorities	F	F	W	W	W				F	F		F		F	F	F	F				
2.3b. Given the results from an analysis of contractor noncompliance, determine the potential implications and describe how to communicate these results to contractor and Department management	F	F			F									F	F	F					
2.3c. Discuss the project management terminology for which definitions are provided in DOE Order 4700.1, Project Management System	F	F	W	W	W				F	F		F	F	F	F	F	F				
2.3d. Discuss in detail the roles played by various management levels within the Department as they relate to the project management system	F	F	F	F	F	F	F	F	F	F		F		F	F	F	F				
2.3e. Discuss the purpose of "key decisions" in the Major System Acquisition (MSA) process. Include in this discussion the responsible authorities for key decisions	F	F	W	W	W	F	F	F	F				F				F				
2.3f. Describe the process by which projects are designated Major System Acquisitions (MSA) or Major Projects	F	F	F																		F
2.3g. Given a design package for an instrumentation and control system, prepare a project plan using the guidance provided in DOE Order 4700.1, Project Management System																					
2.3h. Discuss the requirements that must be met to make a change to a project plan	F	F	F	F	F	F	F	F	F								F	F			
2.4 Familiarity knowledge of DOE Order 4700.1, Project Management System																					
2.4a. Discuss the purpose, scope, and application of DOE Order 4700.1, Project Management System. Include in this discussion key terms, essential elements, and personnel responsibilities and authorities	F	F	W	W	W				F	F		F		F	F	F	F				
2.4b. Discuss the project management terminology for which definitions are provided in DOE Order 4700.1, Project Management System	F	F	W	W	W				F	F		F	F	F	F	F	F				
2.4c. Discuss in detail the roles played by various management levels within the Department as they relate to the project management system	F	F	F	F	F	F	F	F	F	F		F		F	F	F	F				
2.4d. Discuss the purpose of "critical decisions". Include in this discussion the responsible authorities for critical decisions	F	F	W	W	W	F	F	F	F				F				F				
2.4e. Describe the process by which projects are designated	F	F	F																		F

2.7 Familiarity level knowledge of life cycle asset management requirements for defense nuclear facilities																			
2.7a. Discuss the implementation requirements for DOE Order 430.1, Life Cycle Asset Management, at defense nuclear facilities	F	F																	F
2.7b. Define the following terms: life cycle, physical asset, strategic system, line item project, value engineering	F	F	F	F	F	F	F								F	F			F
2.7c. Discuss the application of DOE Order 430.1, Life Cycle Asset Management requirements for the following: asset management performance measures, physical asset acquisition, operation and maintenance of physical assets, disposition of physical assets	F	F	F	F	F	F	F	F	F						F	F	F		F
2.7d. Discuss the responsibilities and authorities for implementing the requirements of DOE Order 430.1, Life Cycle Asset Management	F	F	F	F	F														F
2.7e. Describe the relationship and application of the following standards: Standards/Requirements Identification Documents (S/RIDS) and Work Smart Standards																			
2.8 Familiarity level knowledge of the DOE operational configuration management program																			
2.8a. Describe the purpose and objectives of the Operational Configuration Management Program	F	F	F		F														
2.8b. Discuss the following elements of the contractor's Configuration Management Plan: program planning, equipment scope criteria, concepts and terminology, interfaces, databases, procedures	F	F			F														
2.8c. Discuss the following elements of the Configuration Management Program: design requirements, document control, change control, assessments, design reconstitution adjunct, materials condition	F	F	F	F	F		F												
2.8d. Discuss the purpose, concepts, and general process for applying the graded approach to operational configuration management	F	F	F	F	F		F	F											
2.8 Familiarity level knowledge of DOE Orders 4700.1, Project Management System, and 430.1, Life Cycle Asset Management																			
2.8a. Discuss the purpose, scope, and application of the DOE Orders listed above. Include in this discussion the key terms, essential elements, and personnel responsibilities and authorities	F	F	W	W	W				F	F		F		F	F	F	F		F
2.8b. Discuss the project management terminology for which definitions are provided in DOE Orders listed above	F	F	W	W	W				F	F		F	F	F	F	F	F		F
2.8c. Discuss in detail the roles played by various management levels within the Department as they relate to project management	F	F	F	F	F	F	F	F	F	F		F		F	F	F	F		F
2.8d. Discuss the purpose of "critical decisions", Include in the discussion the responsible authorities for critical decisions	F	F	W	W	W	F	F	F	F				F						F
2.8e. Describe the process by which projects are designated	F	F	F																F
2.9 Familiarity level knowledge of DOE Order 4700.1, Project Management System																			
2.9a. Discuss the purpose, scope, and application of DOE Order 4700.1, Project Management System. Include in this discussion the key terms essential elements, and personnel responsibilities and authorities	F	F	W	W	W				F	F		F		F	F	F	F		F
2.9b. Discuss the project management terminology for which definitions are provided in DOE Order 4700.1, Project Management System	F	F	W	W	W				F	F		F	F	F	F	F	F		F
2.9c. Discuss in detail the roles played by various management levels	F	F	F	F	F	F	F	F	F	F		F		F	F	F	F		F

within the Department as they relate to the Project Management System																			
2.9d. Discuss the purpose of "critical decisions". Include in the discussion the responsible authorities for critical decisions	F	F	W	W	W	F	F	F	F				F						F
2.9e. Describe the process by which projects are designated	F	F	F																F
2.10 Familiarity level knowledge of DOE Standard DOE-STD-1073-93, Guide for Operational Configuration Management Program																			
2.10a. Describe the purpose and objectives of the Operational Configuration Management Program	F	F	F		F														
2.10b. Discuss what constitutes acceptable contractor performance consistent with the requirements of DOE-STD-1073-93, Guide for Operational Configuration Management Program, for the following elements of the contractor's Configuration Management Plan	F	F	F		F														
2.10c. Discuss the following elements of the Configuration Management Program: design requirements, document control, change control, assessments, design reconstitution adjunct, materials condition	F	F	F	F	F		F												
2.10d. Discuss the purpose, concepts, and general process for applying the graded approach to operational configuration management	F	F	F	F	F		F	F											
2.11 Familiarity level knowledge of DOE Order 4700.1, Project Management System																			
2.11a. Discuss the purpose, scope, and application of DOE Order 4700.1, Project Management System. Include in this discussion the key terms essential elements, and personnel responsibilities and authorities	F	F	W	W	W				F	F		F		F	F	F	F		
2.11b. Discuss the project management terminology for which definitions are provided in DOE Order 4700.1, Project Management System	F	F	W	W	W				F	F		F	F	F	F	F	F		
2.11c. Discuss in detail the roles played by various management levels within the Department as they relate to the Project Management System	F	F	F	F	F	F	F	F	F	F		F		F	F	F	F		
2.11d. Discuss the purpose of "critical decisions". Include in the discussion the responsible authorities for critical decisions	F	F	W	W	W	F	F	F	F				F						F
2.11e. Describe the process by which projects are designated	F	F	F																F
3.2 Familiarity level knowledge of the general principles associated with project management																			
3.2a. Discuss the purpose and requirements of the following DOE Orders on project management: 4700.1, Project Management System and 430.1, Life Cycle Asset Management	F	F	W	W	W				F	F		F		F	F	F	F		
3.2b. Discuss the radiation protection personnel responsibilities related to project management, administration, and coordination of the radiation protection programs																			
4.1 Working level knowledge of the DOE project management system, including how contractor resources are applied to meet instrumentation and control system commitments to quality, safety, cost, and schedule																			
4.1 Working level knowledge of project management principles and the methods used to ensure that contractor resources are applied to meet quality, safety, technical, cost, and schedule estimates																			
4.1 Familiarity level knowledge of project management practices																			

sufficient to manage training-related programs and projects																					
4.1a. Explain the purpose of project management and describe the life cycle of a typical project	F	F	F	F	F	F	F	F	F	F	F	F	F		F	F	F				
4.1b. Describe the primary roles and responsibilities of instrumentation and control personnel as outlined in DOE Order 4700.1, Project Management System																					
4.1b. Describe the primary roles and responsibilities of construction management and engineering personnel as outlined in DOE Order 4700.1, Project Management System	F	F			F									F			F				
4.1c. Describe typical documents and data sources used in project management	F	F	F	F	F	F	F	F	F	W	W	W	W	F	F	F	F				
4.1c. Identify and explain the major elements of a project, and discuss their relationship	F	F	F	F	F	F	F	F	F								F				
4.1d. Identify, explain, and discuss the relationship of the major elements of a project	F	F	F	F	F	F	F	F	F								F				
4.1d. Explain the purpose and use of a project management plan	F	F	F	F	F											F	F				
4.1e. Explain the purpose and use of a Project Management Plan (PMP)	F	F	F	F	F											F	F				
4.1e. Explain the purpose and use of a Project Execution Plan	F	F	F	F	F											F	F				
4.1e. Discuss the relationship between work breakdown structure (WBS) and cost and schedule	F	F	F	F	F	F	F	F	F	F				F	F	F	F				
4.1f. Discuss the role of quality assurance in relation to project management	F	F	F		F		F			F		F									
4.1f. Discuss the five elements of the DOE program for operational configuration management as described in DOE-STD-1073-93, Guide for Operational Configuration Management Program (design requirements, document control, program management, change control	F	F	F	F	F		F														
4.1f. Describe the purpose of schedules and discuss the use of milestones and activities	F	F	F	F	F		F			F	W	F	F								
4.1g. Explain the use of safety plans in the management of projects	F	F	F		F					F	F										
4.1g. Describe the critical path method of scheduling	F	F		W	F					F	F	F	F								
4.1h. Discuss the relationship between work breakdown structure (WBS) and cost and schedule	F	F	F	F	F	F	F	F	F	F				F	F	F	F				
4.1i. Describe the purpose and use of work packages and/or planning packages	F	F	W	F	W									F		F					
4.1j. Describe the purpose and use of schedules and discuss the use o milestones and activities	F	F	F	F	F		F			F	W	F	F								
4.1k. Describe the critical path method of scheduling	F	F		W	F					F	F	F	F								
4.1l. Explain the concept of a project management baseline and describe the four baselines used in project management	F	F	W	W	W	F	F	F	F					F	F	F	F				
4.1l. Explain the concept of a project management baseline and describe the baseline used in project management	F	F	W	W	W	F	F	F	F					F	F	F	F				
4.1m. Discuss the following elements of construction project contract labor: availability of labor skills, interaction of labor crafts, standby requirements and their impact on the schedule, craft jurisdiction, union vs. non-union, skills and labor rates	F		F	F	F																
4.1n. Describe how performance and productivity rates are established	F	F			F									F			F				
4.1o. Discuss the use of resource loaded, time-based, CPM schedule for the day-to-day control of a project and its importance in meeting cost and schedule baseline	F	F	F	F	F												F				
4.2 Ability to perform project management duties necessary to provide instrumentation and control technical support to a project																					
4.2a. Given appropriate data, prepare a Project Management																					

Plan (PMP)																	
4.2b. Given appropriate data, develop a work breakdown structure (WBS)	F	F	F														
4.2c. Given appropriate data, develop a project's critical path schedule	F	F		F													
4.3 Working level knowledge of program/project management practices and the application of contractor resources to meet commitments to nuclear safety, quality, cost, and schedule in accordance with DOE Orders 4700.1, Project Management System, and 4700.4																	
4.3 Working level knowledge of program/project management necessary to integrate program resources and apply those resources to meet quality, safety, cost, and schedule commitments as described in DOE Order 4700.1, Project Management System, and the DOE Technical Standards																	
4.3 Familiarity level knowledge of project management										F	F	F	F				
4.3 Familiarity level knowledge of program/project management practices and the application of contractor resources to meet commitments to mechanical systems quality, safety, cost, and schedule																	
4.3 Working level knowledge of program management practices and how contractor resources are applied to meet waste management quality, safety, cost, and schedule commitments as described in DOE Order 4700.1, Project Management System, and DOE Technical Standards																	
4.3a. Explain the purpose of project management	F	F	F	F	F	F	F	F	F	F	F	F	F		F	F	F
4.3a. Explain the purpose of project management within the Department and describe the life cycle of a typical project	F	F	F	F	F	F	F	F	F	F	F	F	F		F	F	F
4.3a. Explain the purpose of project management and describe the life cycle of a typical project	F	F	F	F	F	F	F	F	F	F	F	F	F		F	F	F
4.3a. Explain the purpose of program management and describe the life cycle of a typical project	F	F	F	F	F	F	F	F	F	F	F	F	F		F	F	F
4.3a. Describe typical documents and data sources utilized in program management.	F	F	F	F	F	F	F	F	F	W	W	W	W	F	F	F	F
4.3b. Describe typical documents and data sources utilized in project management	F	F	F	F	F	F	F	F	F	W	W	W	W	F	F	F	F
4.3b. Describe the primary roles and responsibilities of nuclear safety personnel as outlined in DOE Order 4700.1, Project Management System, and DOE Order 4700.4, Project Manager Certification																	
4.3b. Describe the life cycle of a typical project	F	F	F	F	F	F	F	F	F	F	F	F	F		F	F	F
4.3b. Define baseline, graded approach, infrastructure, life-cycle, programmatic management, metrics and performance measures.	F	F	F	F	F	F	F	F	F					F	F	F	F
4.3c. Describe key elements of supervising/ monitoring program activities and contractors.	F	F			F												
4.3c. Describe typical documents and data sources utilized in project management	F	F	F	F	F	F	F	F	F	W	W	W	W	F	F	F	F
4.3c. Identify and explain the major elements of a project and discuss their relationship	F	F	F	F	F	F	F	F	F								F
4.3d. Identify and explain the major elements of a project and discuss their relationship	F	F	F	F	F	F	F	F	F								F
4.3d. Explain the purpose and use of a Project Management Plan Plan (PMP)	F	F	F	F	F											F	F
4.3d. Describe the purpose of schedules, and discuss the use of milestones and activities.	F	F	F	F	F		F			F	W	F	F				
4.3e. Explain the purpose and use of a Project Management Plan	F	F	F	F	F											F	F

Plan (PMP)																			
4.3e. Discuss the role of configuration management as it relates to project management	F	F	F		F														
4.3f. Discuss the role of configuration management as it relates to project management	F	F	F		F														
4.3f. Discuss the role of quality assurance as it relates to project management	F	F	F		F		F			F		F							
4.3g. Discuss the role of quality assurance as it relates to project management	F	F	F		F		F			F		F							
4.3g. Explain the use of safety plans in the management of projects	F	F	F		F					F	F								
4.3g. Describe the purpose and use of work packages and/or planning packages	F	F	W	F	W									F		F			
4.3h. Explain the use of safety plans in the management of projects	F	F	F		F					F	F								
4.3h. Discuss the relationship between work breakdown structure (WBS) and cost and schedule	F	F	F	F	F	F	F	F	F	F				F	F	F	F		
4.3h. Describe the purpose of schedules and discuss the use of milestones and activities	F	F	F	F	F		F			F	W	F	F						
4.3i. Discuss the relationship between work breakdown structure (WBS) and cost and schedule	F	F	F	F	F	F	F	F	F	F				F	F	F	F		
4.3i. Describe the purpose and use of work packages and/or planning packages	F	F	W	F	W									F		F			
4.3i. Explain the use of a logic diagram	F	F		W	F					F	F	F	F						
4.3i. Describe the purpose and use of work packages and/or planning packages	F	F	W	F	W									F		F			
4.3j. Describe the purpose and use of work packages and/or planning packages	F	F	W	F	W									F		F			
4.3j. Describe the purpose of schedules and discuss the use of milestones and activities	F	F	F	F	F		F			F	W	F	F						
4.3j. Describe the “critical path method” of scheduling	F	F		W	F					F	F	F	F						
4.3k. Describe the purpose of schedules and discuss the use of milestones and activities	F	F	F	F	F		F			F	W	F	F						
4.3k. Describe the critical path method of scheduling	F	F		W	F					F	F	F	F						
4.3k. Describe the requirements for project/program files and documentation	F	F			F									F			F		
4.3l. Describe the critical path method of scheduling	F	F		W	F					F	F	F	F						
4.3l. Explain the concept of a project management baseline and describe the cost, schedule, and scope baselines used in project management	F	F	W	W	W	F	F	F	F					F	F	F	F		
4.3l. Discuss the requirements to procure external products and services for Department projects																			
4.3l. Explain the concept of a project management baseline and describe the four baselines used in project management	F	F	W	W	W	F	F	F	F					F	F	F	F		
4.3m. Explain the concept of a project management baseline and describe the four baselines used in project management	F	F	W	W	W	F	F	F	F					F	F	F	F		
4.3m. Describe the methods for procuring other Department or Government products and services																			
4.3n. Describe areas of project management where difficulties are likely to occur	F	F	F	F	F	F	F	F	F					F	F	F	F		
4.3o. Describe lessons-learned from previous projects	F	F			F									F			F		
4.4 Working level knowledge of program plans submitted by contractors, including the evaluation of the scope and technical merit of those plans as described in DOE Order 4700.1, Project Management System, and the DOE Technical Standard, DOE-STD-1073-93, G																			
4.4 Ability to perform project management duties as required to																			

provide mechanical systems technical support to a project																			
4.4 Ability to perform project management duties in providing																			
construction management and engineering support to a project																			
4.4 Working level knowledge of program/project management																			
practices and the application of contractor resources to meet																			
commitments to occupational safety and health, nuclear safety,																			
quality, cost and schedule in accordance with DOE Order 4700.1,																			
Project Management Systems																			
4.4. Familiarity level knowledge of program/project management																			
practices and how contractor resources are applied to meet																			
commitments to emergency management quality, safety, cost and																			
schedule																			
4.4a. Explain the purpose of project management	F	F	F	F	F	F	F	F	F	F	F	F	F		F	F	F		
4.4a. Explain the purpose of project management within the	F	F	F	F	F	F	F	F	F	F	F	F	F		F	F	F		
Department and describe the life cycle of a typical project																			
4.4a. Given appropriate data, review a Project Management Plan and				F															
report on its accuracy, as it relates to actual data																			
4.4a. Support the preparation of a Project Execution Plan											F								
4.4b. Given program data, review a Work Breakdown Structure and	F	F	F	F	F	F	F	F	F					F	F	F	F		
report on its accuracy, as it relates to actual data																			
4.4b. Evaluate a Work Breakdown Structure (WBS)	F	F	F	F	F	F	F	F	F					F	F	F	F		
4.4b. Describe the primary role and responsibilities of EH residents																			
consistent with the requirements in DOE Order 4700.1,																			
Project Management System																			
4.4b. Describe the life cycle of a typical project	F	F	F	F	F	F	F	F	F	F	F	F	F		F	F	F		
4.4c. Given data, identify a project's critical path schedule	F	F		F	F														
4.4c. Evaluate a project's critical path schedule	F	F		F	F														
4.4c. Describe typical documents and data sources utilized in project	F	F	F	F	F	F	F	F	F	W	W	W	W	F	F	F	F		
management																			
4.4d. Identify and explain the major elements of a project, and	F	F	F	F	F	F	F	F	F								F		
discuss their relationship																			
4.4d. Using the results from an analysis of contractor noncompliance,	F	F			F									F		F			
determine the potential implications and describe how to																			
communicate the results to contractor and Department																			
management																			
4.4e. Explain the purpose and use of a Project Management	F	F	F	F	F											F	F		
Plan (PMP)																			
4.4f. Discuss the role of configuration management as it relates to	F	F	F		F														
project management																			
4.4g. Describe the purpose and use of work packages and/or planning	F	F	W	F	W									F		F			
packages																			
4.4g. Discuss the role of quality assurance as it relates to project	F	F	F		F		F			F		F							
management																			
4.4h. Explain the use of safety plans in the management of projects	F	F	F		F					F	F								
4.4i. Describe the "critical path method" of scheduling	F	F		W	F					F	F	F	F						
4.4i. Discuss the relationship between work breakdown structure	F	F	F	F	F	F	F	F	F	F				F	F	F	F		
(WBS) and cost and schedule																			
4.4j. Describe the requirements for project/program files and	F	F			F									F			F		
documentation																			
4.4j. Describe the purpose and use of work packages and/or planning	F	F	W	F	W									F		F			
packages																			
4.4k. Describe the purpose of schedules and discuss the use of	F	F	F	F	F		F			F	W	F	F						
milestones and activities																			
4.4l. Describe the critical path method of scheduling	F	F		W	F					F	F	F	F						
4.4m. Explain the concept of a project management baseline and	F	F	W	W	W	F	F	F	F					F	F	F	F		
describe the three baselines used in project management																			

4.5 Ability to perform project management duties as required to provide electrical systems technical support to a project																		
4.5a. Ensure that cost, schedule, and scope requirements are met	F	F	F	F	F	F	F	F	F					F	F	F	F	
4.5a. Support the preparation of a Project Execution Plan											F							
4.5b. Evaluate a Work Breakdown Structure (WBS)	F	F	F	F	F	F	F	F	F					F	F	F	F	
4.5b. Act as principal contact and liaison for the exchange of information between the contractor and the Department					F									F	F			
4.5c. Ensure that instructions to the contractor are within the terms of the contract					F									F	F			
4.5c. Evaluate a project's critical path schedule	F	F		F	F													
4.5d. Using the results from an analysis of contractor noncompliance, determine the potential implications and describe how to communicate the results to contractor and Department management	F	F			F									F		F		
4.5d. Ensure compliance by the contractor with the technical, safety, and administrative requirements of the contract	F	F	F	F	F		F							F	F	F	F	
4.5e. Participate in the formulation and approval of plans and schedules																		
4.5f. Arrange for contacts between the construction contractor, other participants, and appropriate staff as required														F				
4.6 Familiarity level knowledge of the DOE project management system including the application of contractor resources to meet commitments to quality, safety, cost, and schedule																		
4.6a. Explain the purpose of project management and describe the phases of a typical project	F	F	F	F	F	F	F	F	F	F	F	F	F		F	F	F	
4.6b. Describe the primary roles and responsibilities of electrical systems personnel as outlines in DOE Order 4700.1, Project Management System																		
4.6c. Describe typical documents and data sources utilized by electrical systems personnel in project management																		
4.6d. Identify and explain the major elements of a project and discuss their relationship	F	F	F	F	F	F	F	F	F								F	
4.6e. Explain the purpose and use of a project execution plan	F	F	F	F	F											F	F	
4.6f. Discuss the role of configuration management as it relates to project management	F	F	F		F													
4.6g. Explain the use of safety plans in the management of projects	F	F	F		F					F	F							
4.6h. Discuss the relationship between work breakdown structure (WBS) and cost and schedule	F	F	F	F	F	F	F	F	F	F				F	F	F	F	
4.6i. Describe the purpose and use of work packages and/or planning packages	F	F	W	F	W									F		F		
4.6j. Describe the purpose and of schedules and discuss the use of milestones and activities	F	F	F	F	F		F			F	W	F	F					
4.6k. Describe the critical path method of scheduling	F	F		W	F					F	F	F	F					
4.6l. Explain the concept of a project management baseline and describe the four baselines used in project management	F	F	W	W	W	F	F	F	F					F	F	F	F	
4.7 Familiarity level knowledge of program and project management																		
4.7a. Explain the purpose of project management as it relates to quality assurance activities	F	F	F		F		F			F		F						
4.7b. Describe typical documents and data sources utilized in project management	F	F	F	F	F	F	F	F	F	W	W	W	W	F	F	F	F	
4.7c. Identify and explain the major elements of a project and discuss their relationship	F	F	F	F	F	F	F	F	F								F	
4.7d. Explain the purpose and use of a Project Execution Plan (PEP)	F	F	F	F	F											F	F	

4.7e. Discuss the role of configuration management as it relates to project management	F	F	F		F															
4.7f. Describe the purpose and use of work packages and/or planning packages	F	F	W	F	W										F		F			
4.7g. Describe the purpose of schedules and discuss the use of milestones and activities	F	F	F	F	F		F			F	W	F	F							
4.7h. Describe the requirements for program/project files and documentation	F	F			F										F					F
4.8 Environmental compliance personnel shall demonstrate a familiarity level knowledge of program and project management as described in DOE Order 4700.1, Project Management System, and DOE Technical Standard, DOE-STD-1073-93, Guide for Operational Configuration Management																				
4.8a. Explain the purpose of project management	F	F	F	F	F	F	F	F	F	F	F	F	F		F	F	F			
4.8b. Describe the life cycle of a typical project	F	F	F	F	F	F	F	F	F	F	F	F	F		F	F	F			
4.8c. Describe typical documents and data sources utilized in project management	F	F	F	F	F	F	F	F	F	W	W	W	W	F	F	F	F			
4.8d. Identify and explain the major elements of a project, and discuss their relationships	F	F	F	F	F	F	F	F	F											F
4.8e. Describe the purpose of schedules and discuss the use of milestones and activities	F	F	F	F	F		F			F	W	F	F							
4.8f. Describe the requirements for project/program files and documentation	F	F			F										F					F
4.8g. Explain the project manager's role in relationship to the contractor and environmental compliance personnel	F	F	F	F	F		F	F							F	F	F			F
4.10 Familiarity level knowledge of the DOE project management system including the application of contractor resources to meet commitments to quality, safety, cost, and schedule																				
4.10a. Explain the purpose of project management and describe the phases of a typical project	F	F	F	F	F	F	F	F	F	F	F	F	F		F	F	F			
4.10b. Describe the primary roles and responsibilities of facility maintenance management personnel as outlines in DOE Order 4700.1, Project Management System																				
4.10c. Describe typical documents and data sources used by facility maintenance management personnel in project management	F	F	F	F	F	F	F	F	F	W	W	W	W	F	F	F	F			
4.10d. Identify and explain the major elements of a project and discuss their relationship	F	F	F	F	F	F	F	F	F											F
4.10e. Explain the purpose and use of a project execution plan	F	F	F	F	F												F			F
4.10f. Discuss the role of configuration management as it relates to project management	F	F	F		F															
4.10g. Explain the use of safety plans in the management of projects	F	F	F		F					F	F									
4.10h. Discuss the relationship between work breakdown structure (WBS) and cost and schedule	F	F	F	F	F	F	F	F	F	F				F	F	F	F			
4.10i. Describe the purpose and use of work packages and/or planning packages	F	F	W	F	W									F		F				
4.10j. Describe the purpose of schedules and discuss the use of milestones and activities	F	F	F	F	F		F			F	W	F	F							
4.10k. Describe the critical path method of scheduling	F	F		W	F					F	F	F	F							
4.10l. Explain the concept of a project management baseline and describe the four baselines used in project management	F	F	W	W	W	F	F	F	F					F	F	F	F			
4.15 Familiarity level knowledge of the general principles of project management as described in DOE Order 4700.1, Project Management System																				

4.15a. Discuss the purpose and requirements of the Order			F	F	W	W	W				F	F		F		F	F	F	F
4.15b. Discuss the responsibilities of safeguards and security personnel participating in the Department project management system in terms of administration and coordination of the safeguards and security programs																			